

Portable Stereo CD System

Operating Instructions

Model No. **RX-ES25**
RX-ES20



COMPACT
disc
DIGITAL AUDIO



Panasonic®

Note:

The "EB" indication shown on the packing case indicates United Kingdom.

Before connecting, operating or adjusting this product, please read these instructions completely. Please keep this manual for future reference.

EB GN

RQT5189-1B

Thank you for purchasing this product.
For optimum performance and safety, please read these instructions carefully.

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Supplied Accessories



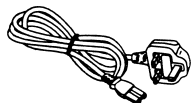
Please check and identify the supplied accessories.
Use numbers indicated in parentheses when asking for replacement parts.

- ☐ AC mains lead 1pc.

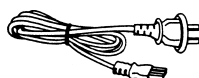
Note

The included AC mains lead is for use with this unit only. Do not use it with other equipment.

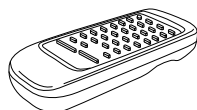
For United Kingdom:
(VJA0733)



For Australia and New Zealand:
(RJA0035-X)



- ☐ Remote control transmitter (EUR648251) 1pc.

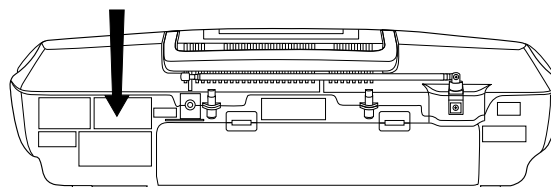


- Avoid using or placing this unit near sources of heat. Do not leave it in an automobile exposed to direct sunlight for a long time with the doors and windows closed as this may deform the cabinet.
- Avoid cuts, scratches, or poor connections in the AC mains lead, as they may result in possible fire or electric shock hazard. Also, excessive bending, pulling or splicing of the lead should be avoided.
- Do not unplug the AC mains lead by pulling on the lead. To do so may cause premature failure or shock hazard.
- Do not operate this unit on AC mains in a bathroom, as a potential shock hazard may result.
- When not in use, disconnect the AC mains lead from the household AC outlet.

In these operating instructions "unit off" is defined as follows:
"Standby" when AC power is used.
"Battery power off" when batteries are used.

CLASS 1
LASER PRODUCT

(Back of product)



DANGER	INVISIBLE LASER RADIATION WHEN OPEN. AVOID DIRECT EXPOSURE TO BEAM.
ADVARSEL	USYNLIG LASERSTRÅLING VED ÅBNING. NÅR SIKKERHEDSÅBRYDERE ER UDE AF FUNKTION. UNNGÅ UDSÆTTELSE FOR STRÅLING.
VARO!	AVATTAESSA JA SUOJALUKITUS OHITETTAESSA OLET ALTTIINA NÄKYMÄTÖNÄ LASERSÄTEILYLLE. ÄLÄ KATSO SÄTEESEEN.
VARNING	ÖSYNLIG LASERSTRÅLNING NÄR DENNA DEL ÄR ÖPPNAD OCH SPÄRREN ÄR URKOPPLAD. BETRÄKTA EJ STRÅLEN.
ADVARSEL	USYNLIG LASERSTRÅLING NÄR DEKSEL ÅPNES OG SIKKERHEDSLÅS BRYTES. UNNGÅ EKSPONERING FOR STRÅLEN.
VORSICHT	UNSICHTBARE LASERSTRAHLUNG, WENN ABDECKUNG GEÖFFNET. NICHT DEM STRAHL AUSSETZEN.

(Inside of product)

(Indersiden af apparatet)

(Tuotteen sisällä)

(Apparatens insida)

(Produktets innsida)

(Im Inneren des Gerätes)

CAUTION!

THIS PRODUCT UTILIZES A LASER.
USE OF CONTROLS OR ADJUSTMENTS OR PERFORMANCE OF PROCEDURES OTHER THAN THOSE SPECIFIED HEREIN MAY RESULT IN HAZARDOUS RADIATION EXPOSURE.
DO NOT OPEN COVERS AND DO NOT REPAIR YOURSELF. REFER SERVICING TO QUALIFIED PERSONNEL.

CAUTION!

DO NOT INSTALL OR PLACE THIS UNIT IN A BOOKCASE, BUILT IN CABINET OR IN ANOTHER CONFINED SPACE. ENSURE THE UNIT IS WELL VENTILATED. ENSURE THAT CURTAINS AND ANY OTHER MATERIALS DO NOT OBSTRUCT THE VENTILATION TO PREVENT RISK OF ELECTRIC SHOCK OR FIRE HAZARD DUE TO OVERHEATING.

WARNING:

TO REDUCE THE RISK OF FIRE, ELECTRIC SHOCK OR PRODUCT DAMAGE, DO NOT EXPOSE THIS APPLIANCE TO RAIN, SPLASHING, DRIPPING OR MOISTURE.

(For United Kingdom)

("EB" area code model only)

For your safety, please read the following text carefully.

This appliance is supplied with a moulded three pin mains plug for your safety and convenience.

A 5-ampere fuse is fitted in this plug.

Should the fuse need to be replaced please ensure that the replacement fuse has a rating of 5-ampere and that it is approved by ASTA or BSI to BS1362.

Check for the ASTA mark  or the BSI mark  on the body of the fuse.

If the plug contains a removable fuse cover you must ensure that it is refitted when the fuse is replaced.

If you lose the fuse cover the plug must not be used until a replacement cover is obtained.

A replacement fuse cover can be purchased from your local dealer.

CAUTION!

IF THE FITTED MOULDED PLUG IS UNSUITABLE FOR THE SOCKET OUTLET IN YOUR HOME THEN THE FUSE SHOULD BE REMOVED AND THE PLUG CUT OFF AND DISPOSED OF SAFELY.

THERE IS A DANGER OF SEVERE ELECTRICAL SHOCK IF THE CUT OFF PLUG IS INSERTED INTO ANY 13-AMPERE SOCKET.

If a new plug is to be fitted please observe the wiring code as stated below.

If in any doubt please consult a qualified electrician.

IMPORTANT

The wires in this mains lead are coloured in accordance with the following code:

Blue: Neutral, Brown: Live.

As these colours may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows:

The wire which is coloured Blue must be connected to the terminal which is marked with the letter N or coloured Black or Blue.

The wire which is coloured Brown must be connected to the terminal which is marked with the letter L or coloured Brown or Red.

WARNING: DO NOT CONNECT EITHER WIRE TO THE EARTH TERMINAL WHICH IS MARKED WITH THE LETTER E, BY THE EARTH SYMBOL  OR COLOURED GREEN OR GREEN/YELLOW.

THIS PLUG IS NOT WATERPROOF—KEEP DRY.

Before use

Remove the connector cover.

How to replace the fuse

The location of the fuse differ according to the type of AC mains plug (figures A and B). Confirm the AC mains plug fitted and follow the instructions below. Illustrations may differ from actual AC mains plug.

1. Open the fuse cover with a screwdriver.

Figure A

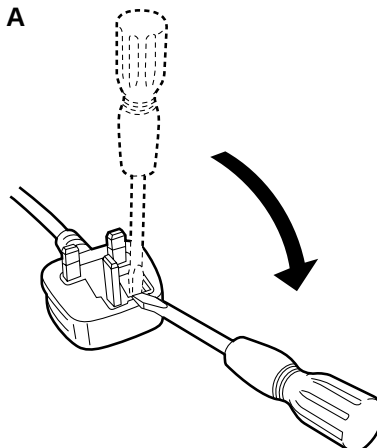
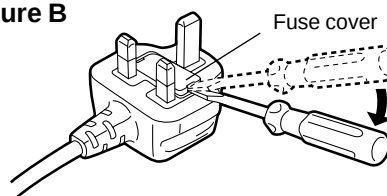


Figure B



2. Replace the fuse and close or attach the fuse cover.

Figure A

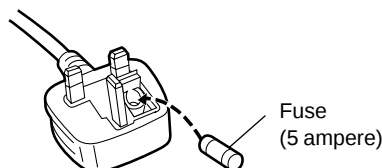
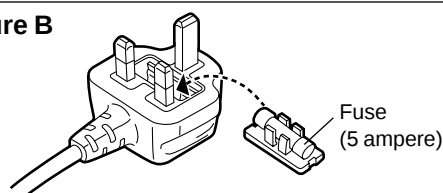
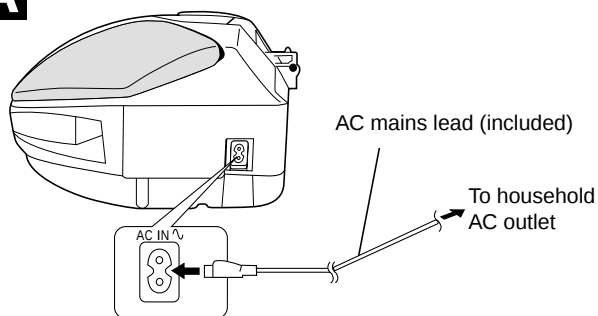
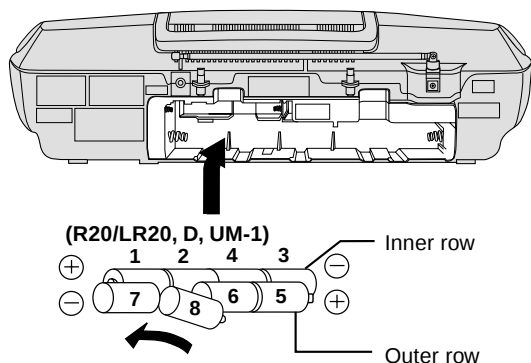
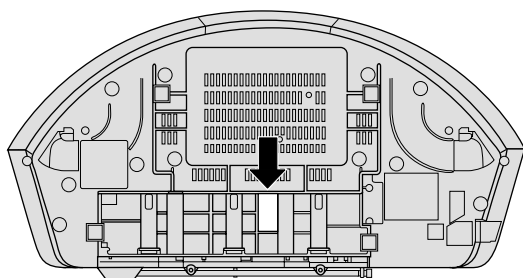
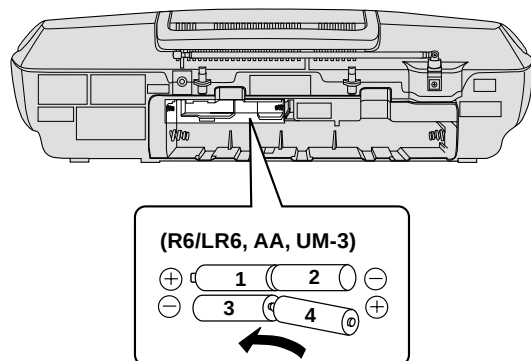
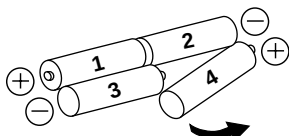


Figure B



A**B****C****D****E**

Use of Batteries

- If this unit is not used for a long period of time or is used only from an AC power source, remove all the batteries to prevent potential damage due to possible battery leakage.
- Align the poles (+ and -) properly when inserting the batteries.
- Do not mix old and new batteries or different types of batteries.
- Do not recharge ordinary dry cell batteries.
- Do not heat or disassemble the batteries. Do not allow them to contact flame or water.
- Do not keep together with metallic objects such as necklaces.
- Do not use rechargeable type batteries.
- Do not use batteries if the covering has been peeled off.

Mishandling of batteries can damage other items, cause damage to the unit, and may cause a fire through short-circuiting or electrolyte leakage.

If electrolyte leaks from the batteries, consult your dealer.

Wash thoroughly with water if electrolyte comes in contact with any part of your body.

Power Sources

A Operating the unit on AC power

FOR UNITED KINGDOM ONLY
BE SURE TO READ THE CAUTION FOR THE AC MAINS LEAD ON PAGE 3 BEFORE CONNECTION.

Connect the AC mains lead.

B Using batteries (not included)

Disconnect the AC mains lead from the unit to operate on battery power.

The remote control cannot turn the unit on when batteries are used.

C Removing the batteries

Open the battery cover, insert a finger into the hole in the bottom of the unit and push out.

Battery life

" " flashes on the display when the batteries are running down. Then, the unit turns itself off and displays "U01". Replace all the batteries with new ones.

D Memory Batteries (not included)

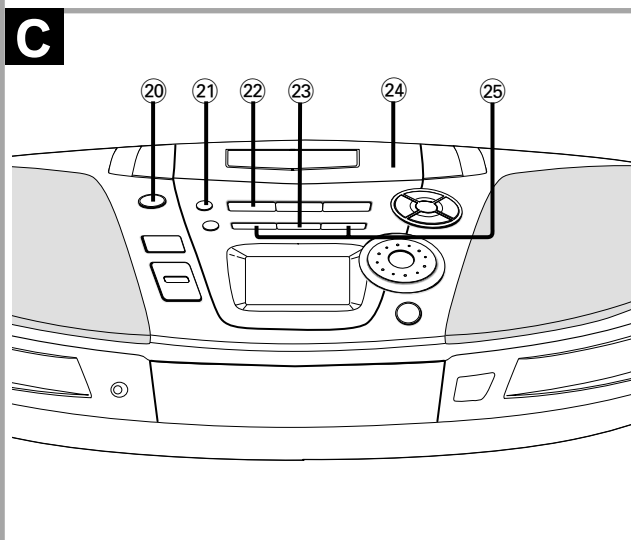
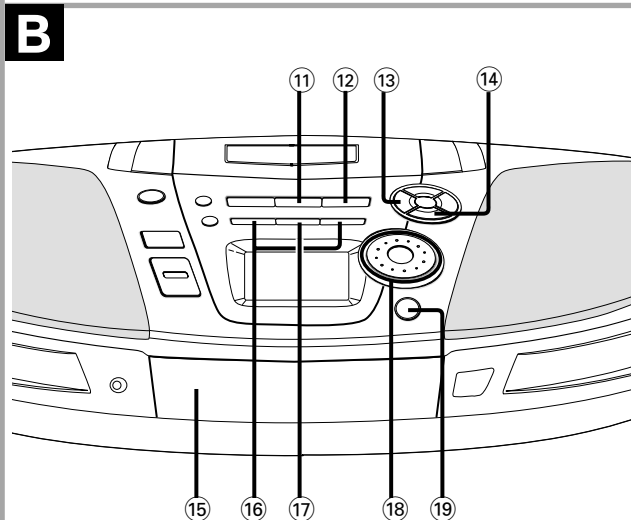
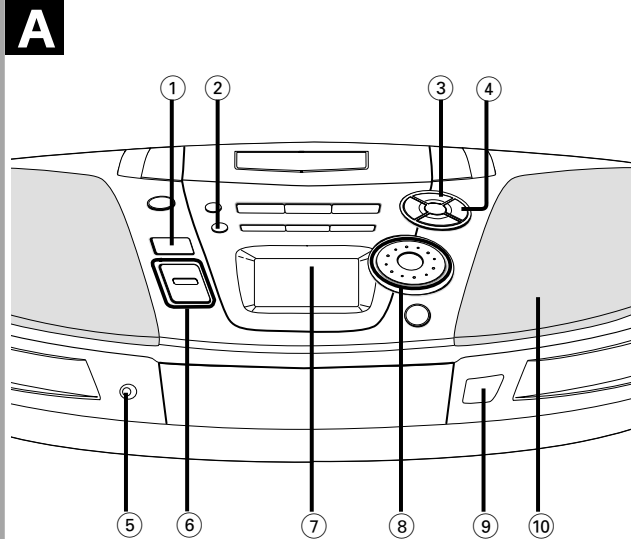
Memory batteries retain memory (clock/timer/CD/radio settings) during power supply interruption. These batteries do not power the unit.

Replacing the batteries

- The memory batteries last about one year.
- Connect the unit to AC power before replacing the batteries.
- Extend the memory battery life by always pressing [] to turn the unit off before disconnecting the unit from the AC mains or replacing the power batteries.

E Removing the batteries

Lift the negative end of the number 4 battery to remove batteries.



A Basic controls

Number	Designation	Reference Page
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- ① **Standby/on switch (⏻/⏻)**
Press to switch the unit from on to standby mode or vice versa. In standby mode, the unit is still consuming a small amount of power.
- ② **Preset equalizer button (PRESET EQ)** 17
- ③ **Play timer/record timer button (⏻/⏻)** 18
- ④ **Clock/timer button (CLOCK/TIMER)** 7, 18
- ⑤ **RX-ES25**
Standby indicator (⏻)
When the unit is connected to the AC mains supply, this indicator lights up in standby mode and goes out when the unit is turned on.

RX-ES20

Standby/on indicator (⏻/⏻)

The indicator lights green when the unit is turned on. When the AC power supply is used, it functions as an AC connection indicator. (The indicator colour changes to red when the unit is turned off.)

- ⑥ **Volume control buttons (+, – VOLUME)** 8, 10, 13
- ⑦ **Display panel**
- ⑧ **Time adjust/preset channel select/CD track select dial (TIME/PRESET TUNE ← CD SKIP →)** 7, 9, 10, 18
- ⑨ **Remote control signal sensor (SENSOR)** 6
- ⑩ **Speaker**

Note

These speakers do not have magnetic shielding. Do not place them near televisions, personal computers or other devices easily influenced by magnetism.

B Tuner/CD controls

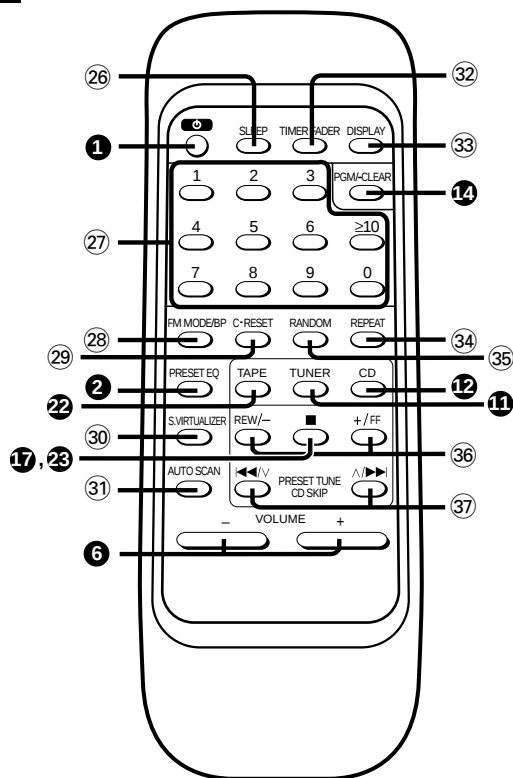
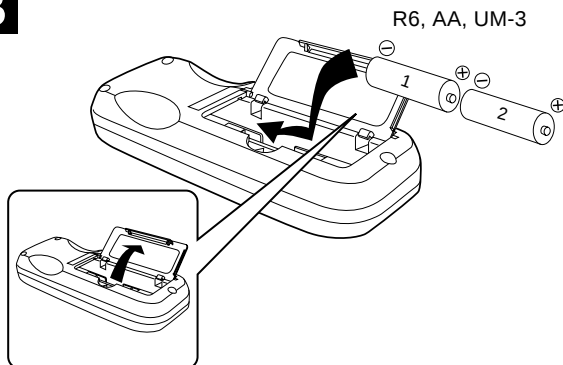
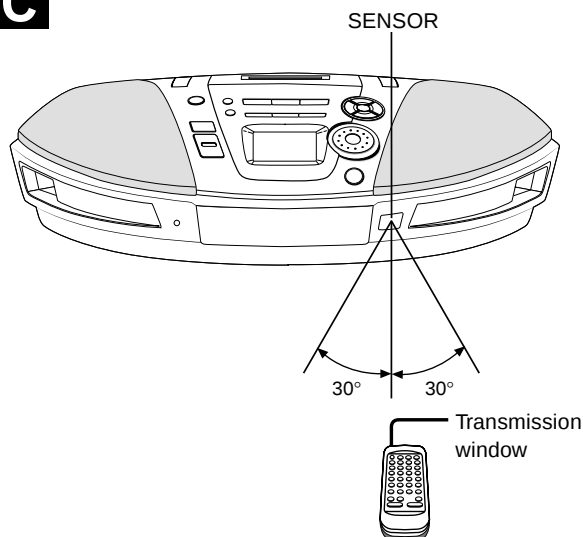
Number	Designation	Reference Page
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- ⑪ **Band button (TUNER BAND)** 8, 9
- ⑫ **CD play/pause button (▶/⏻ CD)** 10
- ⑬ **CD recording mode button (CD REC MODE)** 15, 16
- ⑭ **CD program/clear, tuner preset button (•MEMORY – CLEAR)** 9, 12
- ⑮ **CD tray**
- ⑯ **Tuning/CD search buttons (REW / – / ◀◀, ▶▶ / + / FF)** 8, 10
- ⑰ **CD mode select/stop button (■ TAPE/CD)** 10, 11
- ⑱ **Preset channel select/CD track select dial (TIME/PRESET TUNE ← CD SKIP →)** 9, 10
- ⑲ **CD tray open/close button (▲ CD)** 10

C Cassette deck controls

Number	Designation	Reference Page
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- ⑳ **Deck eject button (▲ DECK)** 13
- ㉑ **Record/record pause button (●/⏻)** 14, 15, 16
- ㉒ **Cassette play button (▶ TAPE)** 13
- ㉓ **Tape mode select/stop button (■ TAPE/CD)** 13, 14
- ㉔ **Deck**
- ㉕ **Rewind/fast-forward buttons (REW / – / ◀◀, ▶▶ / + / FF)** 13

A**B****C****The Remote Control****A****Buttons**

Number	Designation	Reference Page
26	Sleep timer button (SLEEP)	19
27	Numbered buttons	9, 11, 12
28	FM mode/BP button (FM MODE/BP)	8, 16
29	Tape counter reset button (C-RESET)	13
30	Sound virtualizer button (S.VIRTUALIZER)	17
31	Auto scan button (AUTO SCAN)	8
32	Timer fader button (TIMER FADER)	19
33	Display select button (DISPLAY)	7, 13
34	Repeat button (REPEAT)	11
35	Random play button (RANDOM)	11
36	Tuning/rewind/fast-forward buttons (REW/-, +/FF)	8, 13
37	Preset tuning/preset scan/CD skip/search buttons (◀◀/V, ^/▶▶)	9, 10

When the unit is supplied with AC power, buttons 1, 2, 6, 11, 12, 14, 17, 22 and 23 function in the same way as the controls on the main unit. To save power, the unit cannot be turned on from the remote control when batteries are used.

B**Batteries (not included)**

Insert so the poles (+ and -) match those in the remote control.

Remove if the remote control is not going to be used for a long period of time. Store in a cool, dark place. Replace if the unit does not respond to the remote control even when held close to the front panel.

C**Use**

Aim at the sensor, avoiding obstacles, at a maximum range of 7 meters directly in front of the unit.

- Keep the transmission window and the unit's sensor free from dust.
- Operation can be affected by strong light sources, such as direct sunlight, and the glass doors on cabinets.

Do not

- put heavy objects on the remote control.
- take the remote control apart.
- spill liquids onto the remote control.

Setting the Clock

This is a twenty-four hour clock.
The example shows how to set the clock to 13:30.

- 1** Press [**⏻/⏮**] to turn the unit on.
- 2** Press [**CLOCK/TIMER**] to select "CLOCK".
Each time you press the button:

→ **CLOCK** → **ON** **⏻** **⏮** → **⏻** **⏮** **OFF** →

Original display ← **⏻** **⏮** **REC** **OFF** ← **⏻** **⏮** **REC** ←
- 3** Within 10 seconds
Turn [**TIME/PRESET TUNE** ← **CD SKIP** →] to set the time.
- 4** Press [**CLOCK/TIMER**] to start the clock.
The original display is restored shortly after.

When batteries are used

The unit cannot be turned on with the remote control.

A Displaying the clock

Remote control only

Press [**DISPLAY**].

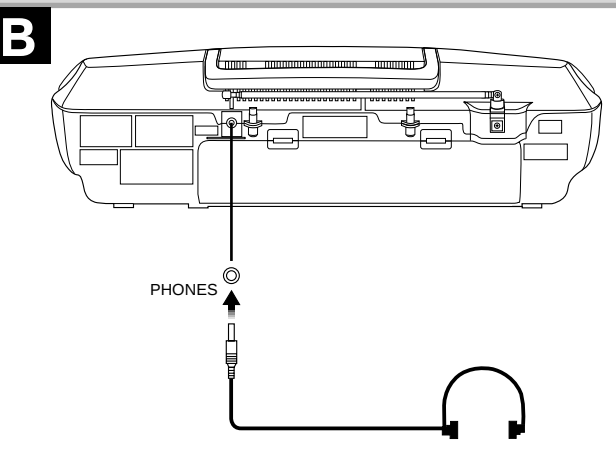
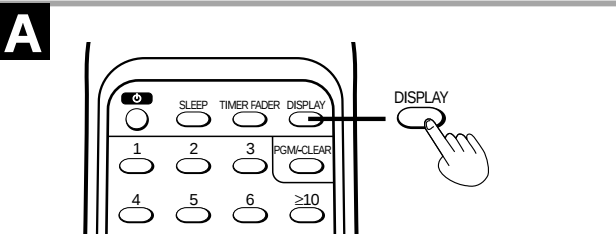
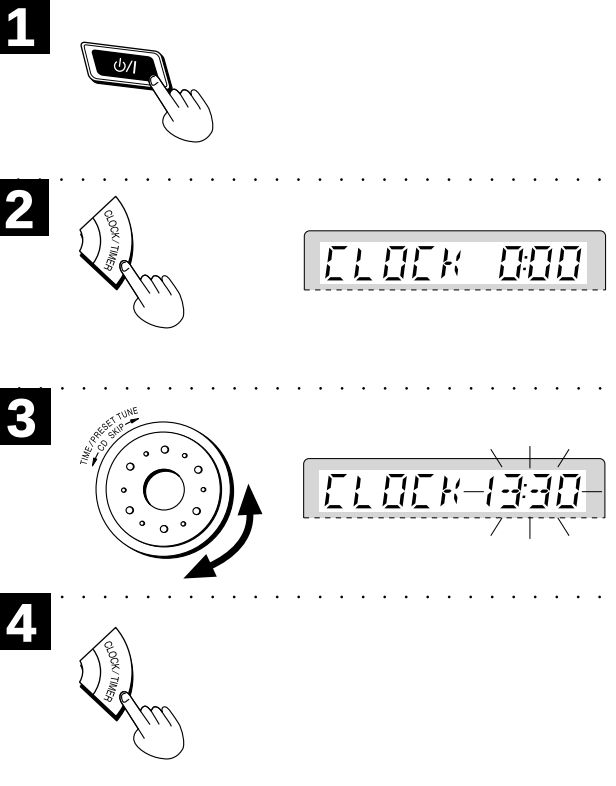
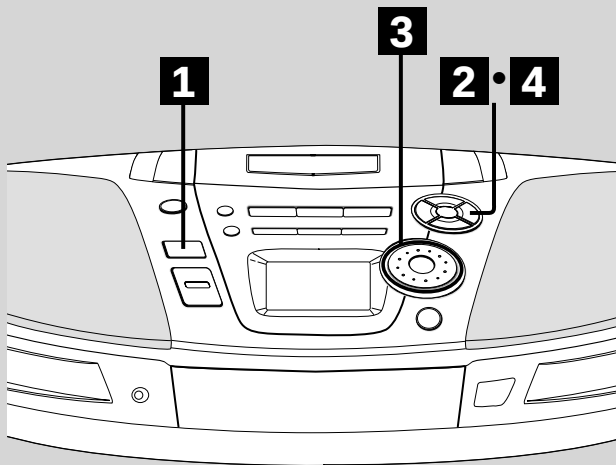
B Using Headphones (not included)

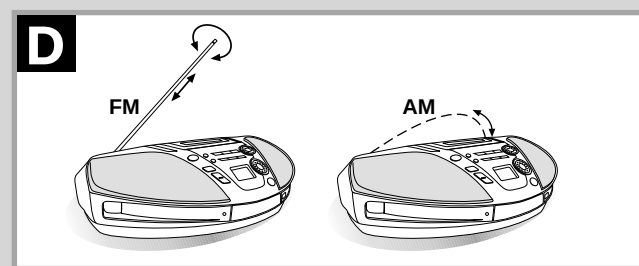
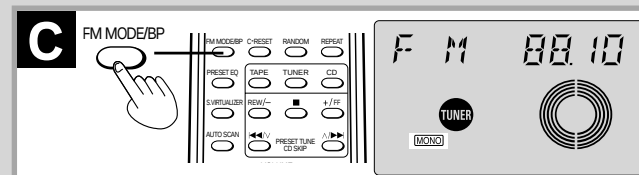
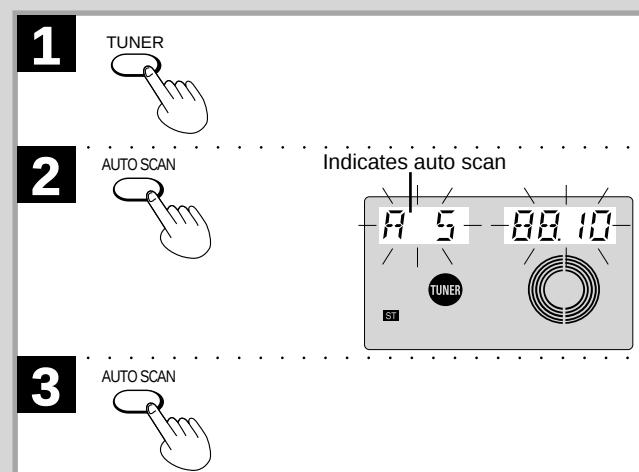
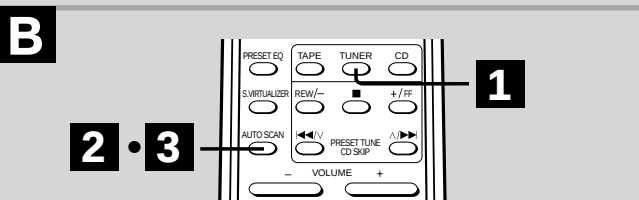
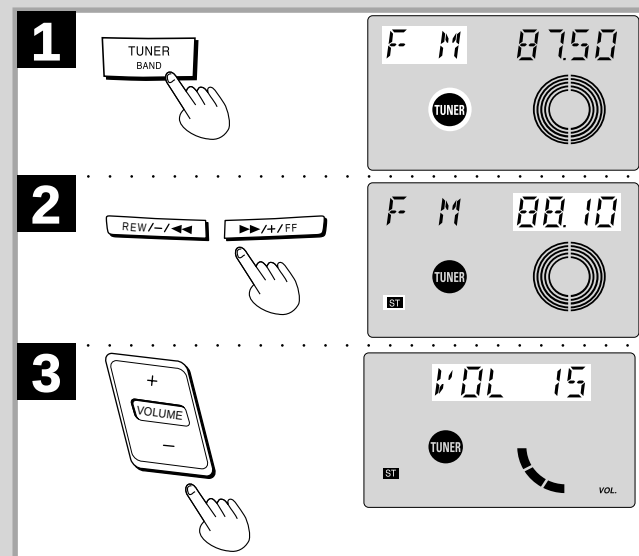
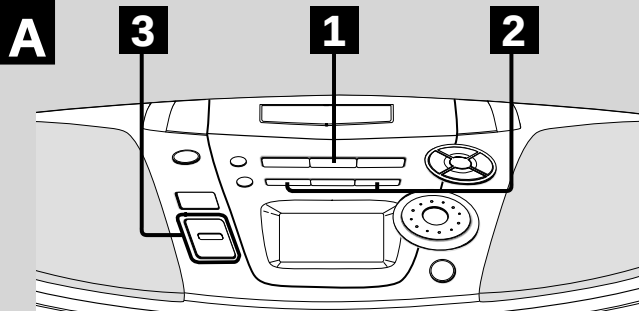
Reduce volume before connection.

Plug type: 3.5 mm stereo

Note

Avoid listening for prolonged periods of time to prevent hearing damage.





The Radio

Preparation: (when using batteries) Press [].

A Normal tuning

- 1** Press [TUNER BAND] to select “FM” or “AM”.
(Unit comes on when using AC power.)
Each time you press the button:
AM ↔ FM
- 2** Press [REW/FF] or [FF/FF] to select a station.
“ST” is displayed during FM stereo broadcasts.
- 3** Press [+ , - VOLUME] to adjust the volume.

B Using auto scan

Remote control only

You can search for a station by listening to all tuned-in stations for 8 seconds each.

- 1** Press [TUNER] to select “FM” or “AM”.
- 2** Press [AUTO SCAN].
Auto scan starts.
- 3** Press [AUTO SCAN] when you find the desired station.

Auto scan ends when it reaches the original frequency again.
To stop during the process, press [AUTO SCAN].

C If noise is excessive in FM

Remote control only

Press [FM MODE/BP] to display “MONO”.

Monaural sound is selected (“ST” goes off) and noise reduces when reception is weak.

Press [FM MODE/BP] again to cancel the mode.

Auto-tuning

Press and hold [REW/FF] or [FF/FF] until the frequency starts changing rapidly.

The frequency stops when it finds a station. (Interference may also cause it to stop. Start auto-tuning again if this occurs.)

To stop auto-tuning

Press [REW/FF] or [FF/FF].

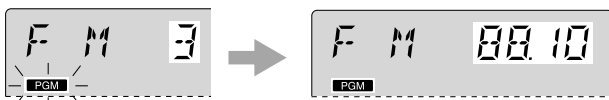
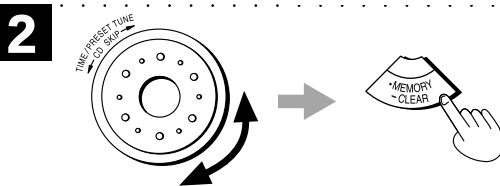
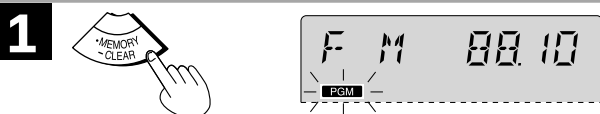
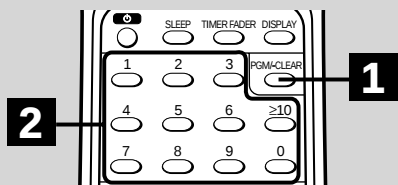
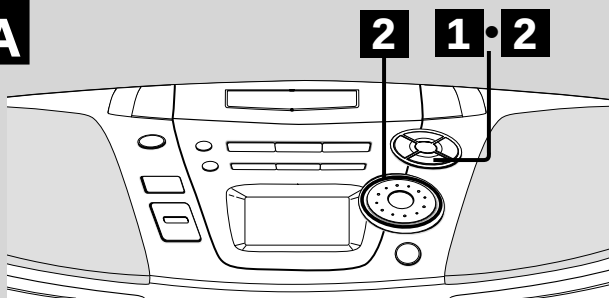
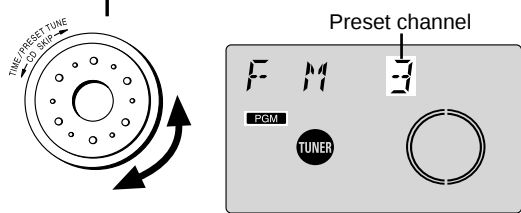
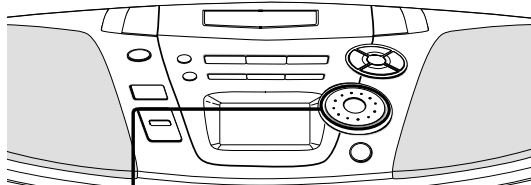
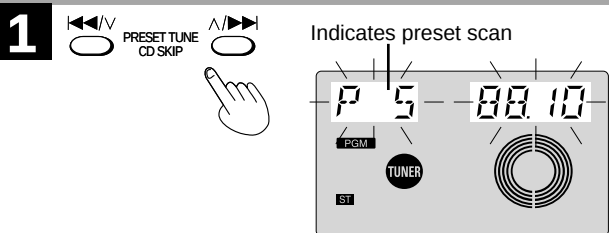
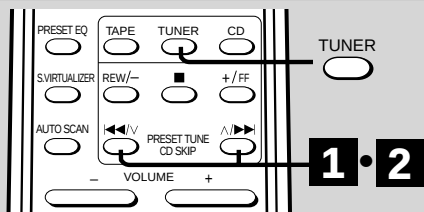
D To improve reception

FM: Change the length and direction of the antenna.

AM: Change the facing of the unit.

Note

- AM reception is briefly interrupted if [▲ DECK] is pressed.
- To improve reception when using the unit in a building or vehicle, use it near a window.

A**B****C**

The Radio

(when using batteries) Press [**⏻/⏮**].

Preset tuning

Tuning is simpler if you preset stations.
You can preset 12 FM and 12 AM stations.

A Presetting radio stations

Preparation: Tune to the station you want to preset. (➡ page 8)

1 Press [**•MEMORY-CLEAR**].

2 While "**PGM**" is flashing
Turn [**TIME/PRESET TUNE ←CD SKIP→**] to select a channel and press [**•MEMORY-CLEAR**].

On the remote control

Press the numbered button(s) to enter the station into a channel (1 to 12).

To enter channel 10, 11 or 12

Press [**≥10**], then the two digits.

If "**PGM**" goes off during presetting, return to step **1**.

Selecting channels

Preparation: Press [**TUNER BAND**] to select "FM" or "AM".

B Turn [**TIME/PRESET TUNE ←CD SKIP→**] to select the channel.

On the remote control

Press the numbered button(s) to select the channel (1 to 12).

To select channel 10, 11 or 12, press [**≥10**], then the two digits.

C Using preset scan

You can search for a station by listening to all preset channels for 8 seconds each.

Remote control only

Preparation: Press [**TUNER**] to select "FM" or "AM".

1 Press and hold [**◀◀/V**] or [**▶▶/V**] until "PS" appears on the display.
Preset scan starts.

2 Press [**◀◀/V**] or [**▶▶/V**] when you find the desired channel.

Preset scan ends after searching through each preset channel once.
To stop during the process, press [**◀◀/V**] or [**▶▶/V**].

Cancelling a preset channel

e.g. If channel 3 is not needed

① Select channel 3.

② Press [**•MEMORY-CLEAR**].

③ While "**PGM**" is flashing

Turn [**TIME/PRESET TUNE ←CD SKIP→**] to display "—".

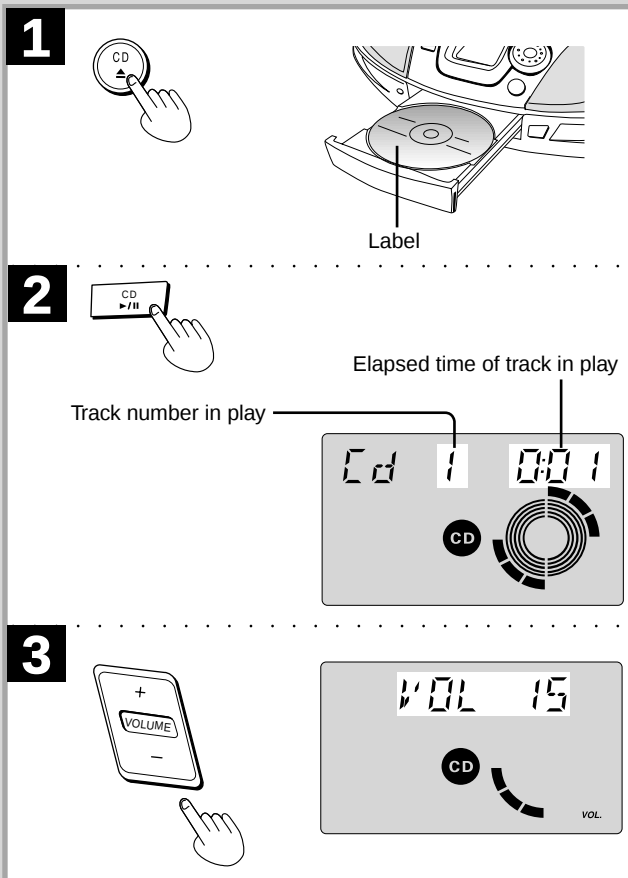
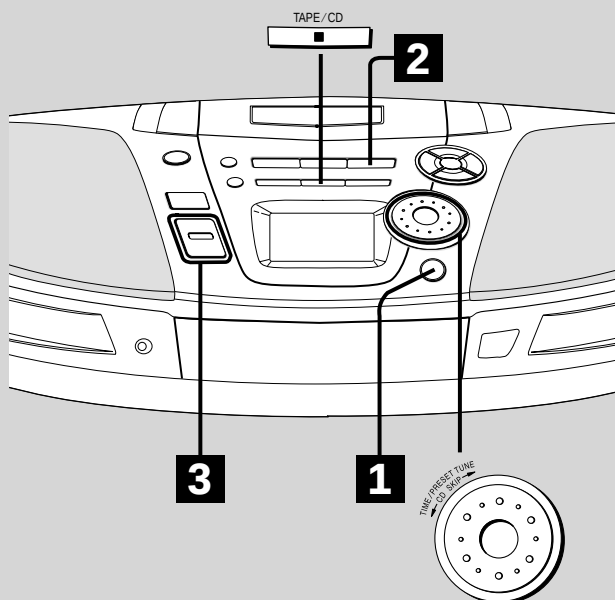
④ Press [**•MEMORY-CLEAR**].

Now, when you perform preset scan or turn [**TIME/PRESET TUNE ←CD SKIP→**] to select a preset channel, channel 3 is skipped.

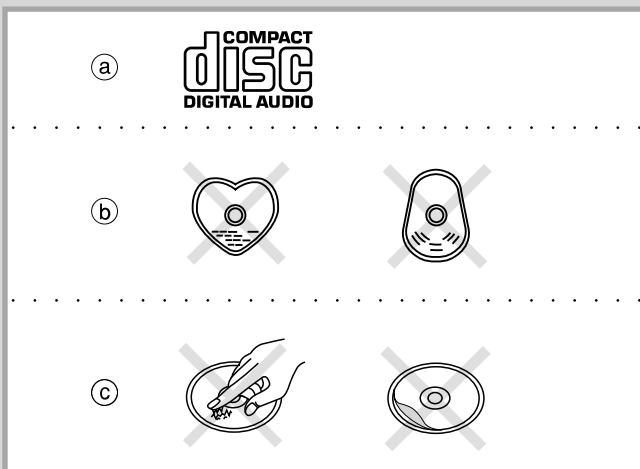
Hints

• To select the cancelled channel, press the remote control's numbered buttons.

• You can press [**◀◀/V**] or [**▶▶/V**] on the remote control for turning of [**TIME/PRESET TUNE ←CD SKIP→**] described above.



A



CDs

- 1** Press [**▲ CD**] to open the tray.
(The unit comes on.)
Load a CD and press [**▲ CD**] to close the tray.
- 2** Press [**▶/|| CD**] to start play.
Plays to the end of the CD and stops.
- 3** Press [**+, - VOLUME**] to adjust the volume.

To stop play

Press [**■ TAPE/CD**].

One touch play (When using AC power)

When a CD is loaded, press [**▶/|| CD**].

The unit comes on and play starts.

To pause play

Press [**▶/|| CD**] during play.

Press again to resume play.

To skip tracks

Turn [**TIME/PRESET TUNE ← CD SKIP →**] clockwise (forward) or counter-clockwise (backward).

On the remote control

Press [**◀◀ / √**] (backward) or [**▶▶**] (forward).

Searching through tracks

Press and hold [**REW / - / ◀◀**] (backward) or [**▶▶ / + / FF**] (forward) during play.

On the remote control

Press and hold [**◀◀ / √**] (backward) or [**▶▶**] (forward) during play.

Note

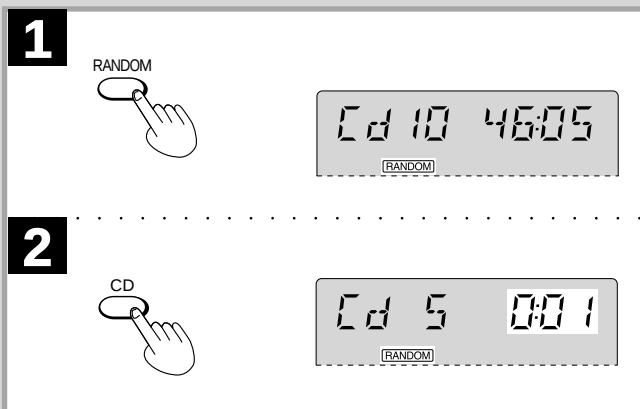
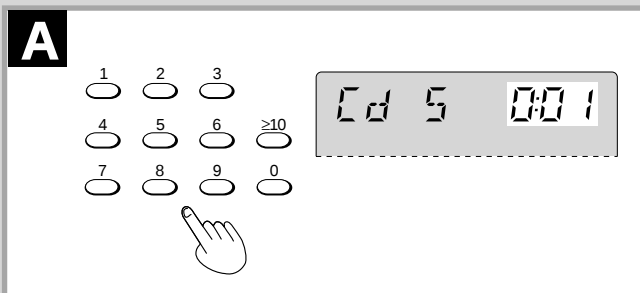
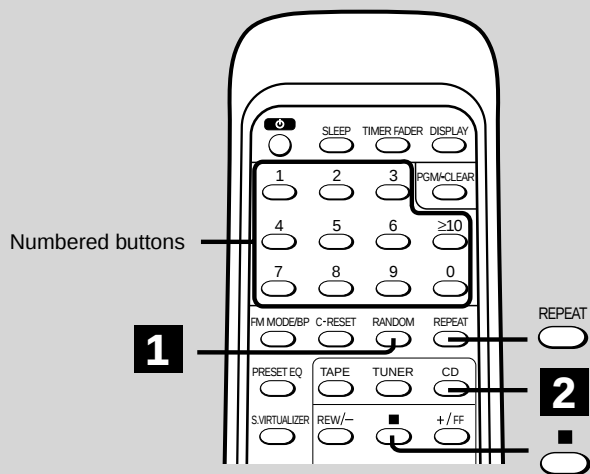
Separate this unit from radios and televisions if it causes interference.

A CD selection

Choose CDs with this mark: (a)

Do not

- use irregularly shaped CDs (b).
- use CDs with labels and stickers that are coming off or with adhesive exuding from under labels and stickers. (c)
- attach scratch-proof covers or any other kind of accessory.
- write anything on the CD.
- clean CDs with liquids. (Wipe with a soft, dry cloth.)
- use CDs printed with label printers available on the market.



Other modes of play

Preparation: Press [■] to switch to CD mode.

Remote control only

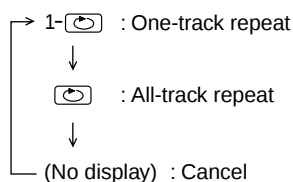
- A Direct access play**
Starts play from a selected track

Select the track with the numbered buttons.
For two-digit tracks, press [≥10], then the two digits.

- B Repeat play**
Plays a track or all tracks repeatedly

Press [REPEAT] before or during play to select a mode.

Each time you press the button:



Press [CD] to start play if in the stop mode.

To repeat selected tracks

- Start program play (➡ page 12).
- Press [REPEAT] to select "1-Track repeat".

To cancel

Press [REPEAT] until "1-Track repeat" and "All-track repeat" are cleared.
The mode is also cancelled if the CD tray is opened.

Random play

Plays the tracks once each in random order

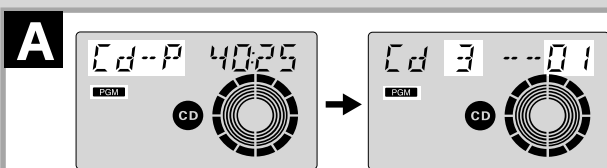
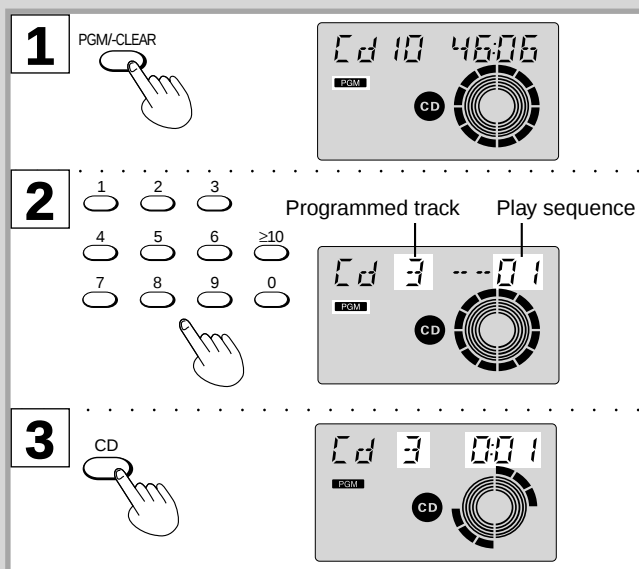
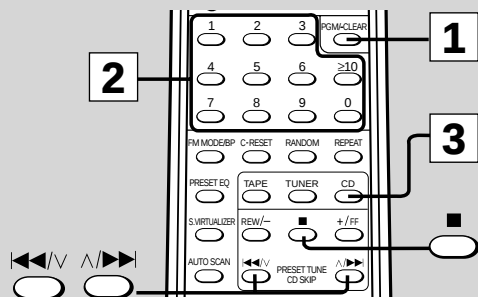
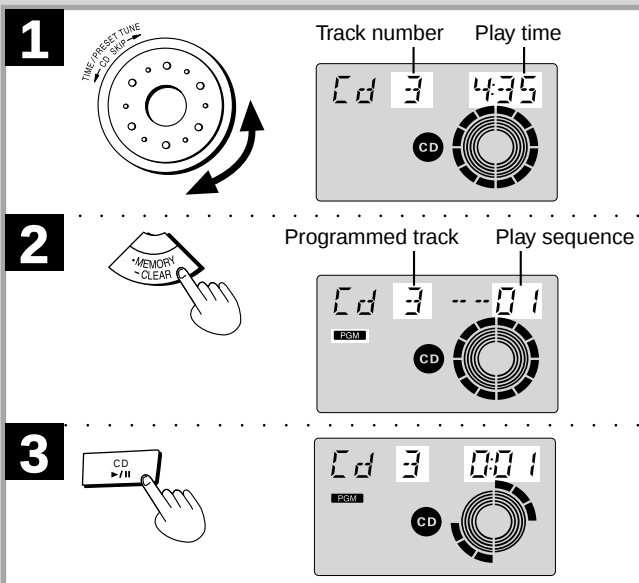
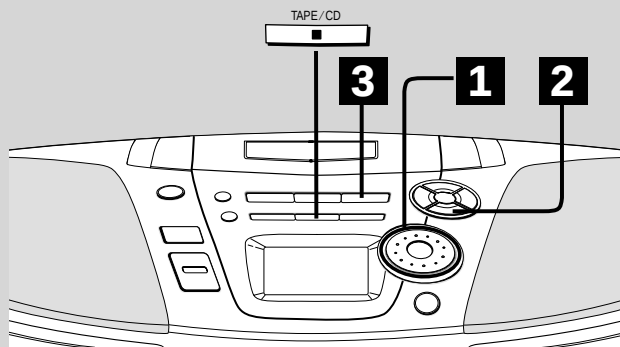
- Press [RANDOM] during CD stop mode.
- Press [CD] to start play.

To cancel

Press [RANDOM] to clear "RANDOM".
If cancelled during play, play continues to the end of the CD.
The mode is also cancelled if the CD tray is opened.

Note

- Random play cannot be used together with 1-track repeat and program play.
- You cannot select tracks with the numbered buttons.
- You cannot skip to tracks already played.
- Search can be done within the track in play only.



CDs

Program play

Select up to 36 tracks to play in the order you choose.

On the main unit

Preparation: Press [■ TAPE/CD] to switch to CD mode.

1 Turn [TIME/PRESET TUNE ← CD SKIP →] to select the track.

2 Press [•MEMORY-CLEAR].

Repeat step **1** and **2** to program other tracks.

3 Press [▶/|| CD] to start play.

On the remote control

Preparation:

Press [■] to switch to CD mode.

1 Press [PGM/-CLEAR].
“PGM” appears on the display.

2 Enter the track number with the numbered buttons.

For tracks numbered 10 and over, press [≥10] then the two digits.

Repeat this step to program other tracks.

3 Press [CD] to start play.

The program remains intact even if play is stopped or the unit is turned off. “Cd-P” appears when play is stopped to indicate the contents are in the memory.

To cancel

Press and hold [•MEMORY-CLEAR] (remote control: [PGM/-CLEAR]) in the stop mode until “CLEAR” is displayed.

The mode is also cancelled if the CD tray is opened.

“FULL” is displayed

If 36 tracks have already been programmed.

“-- --” is displayed

If the total play time of the program exceeds 100 minutes.

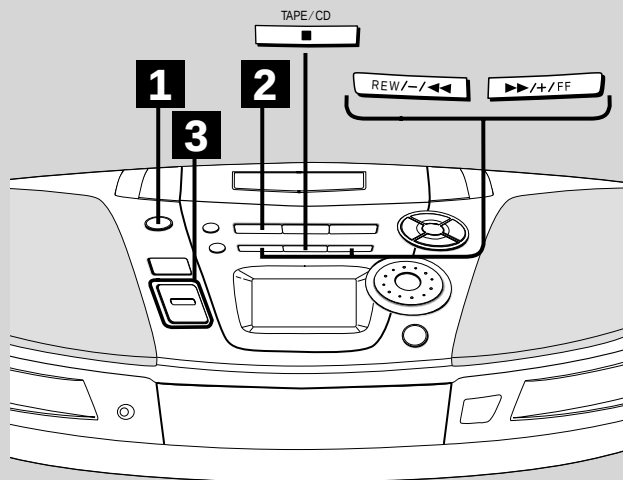
You can still program and play tracks.

A To check the program contents (while “Cd-P” is displayed)

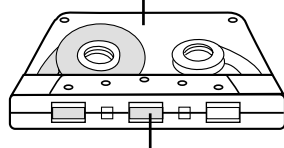
Turn [TIME/PRESET TUNE ← CD SKIP →].

On the remote control

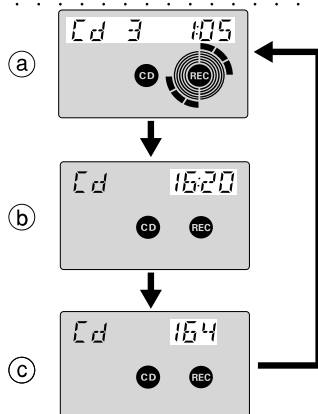
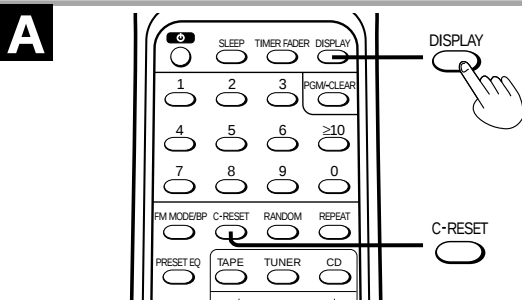
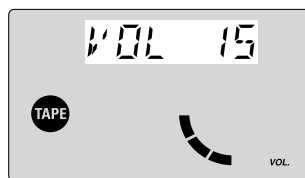
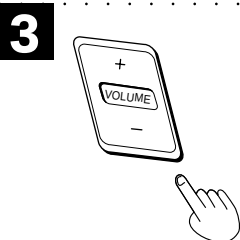
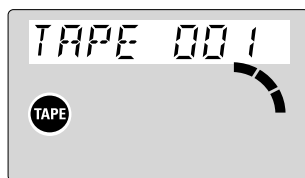
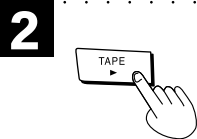
Press [◀◀/V] or [^/▶▶].



1 Side to be played back facing up



Insert the cassette with the exposed tape facing you.



1 Press [**▲** DECK] to open the deck.
(The unit comes on.)
Load a cassette and close the deck by hand.

2 Press [**▶** TAPE] to start play.

3 Press [+ , - VOLUME] to adjust the volume.

To stop play:
Press [**■** TAPE/CD].

One touch play (When using AC power)
When a cassette is loaded, press [**▶** TAPE].
The unit comes on and play starts.

Fast-forward and rewind
Press [**REW** / - / **◀◀**] (rewind) or [**▶▶** / + / **FF**] (fast-forward).
On the remote control
Press [**REW** / -] (rewind) or [**+ / FF**] (fast-forward).

Selection of tapes
Use normal position tapes to play correctly.
High position and metal position tapes can be played, but the unit will not be able to do full justice to the characteristics of these tapes.

Cassette tape care

- Tapes exceeding 100 minutes are thin and can break or get caught in the mechanism.
- Tape slack can get caught up in the mechanism and should be taken up before the tape is played.
- Endless tapes can get caught up in the deck's moving parts if used incorrectly.

Tips on Recording

Your attention is drawn to the fact that recording pre-recorded tapes or discs or other published or broadcast material may infringe copyright laws.

Use household AC power or new batteries when recording to avoid poor recordings caused by the batteries running down.
Televisions can cause interference to recordings made on this unit if the two are too close to each other.

Selection of tapes for recording
Use normal position tapes.
High position and metal position tapes can be used, but the unit will not be able to record or erase them correctly.

Volume and sound quality in recording

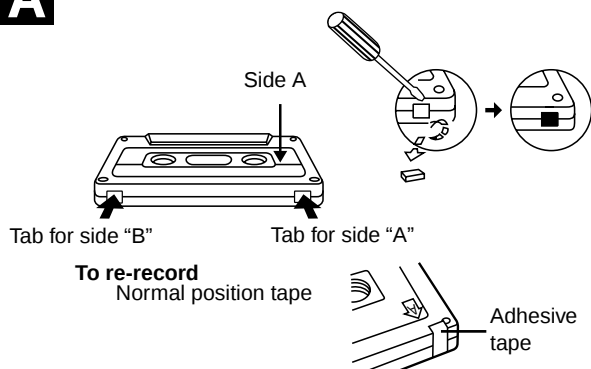
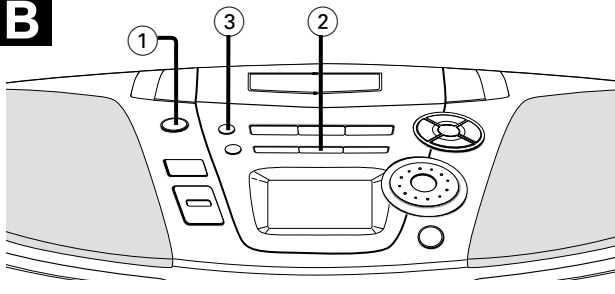
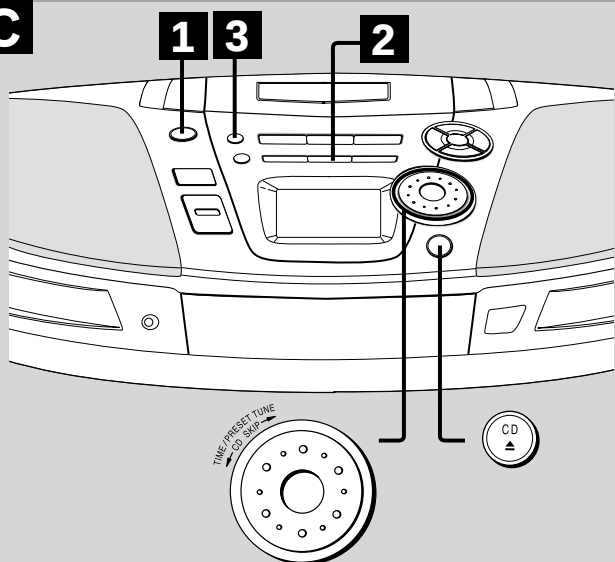
- Recording level is set automatically.
- Recording are unaffected by changes to sound quality.

A To display the tape counter while recording

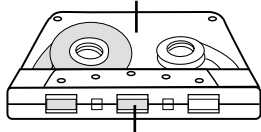
Remote control only

Press [DISPLAY].
Each time you press the button in the CD or radio mode:
→ (a) Present state → (b) Present time → (c) Tape counter

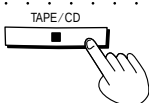
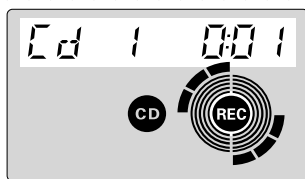
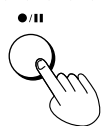
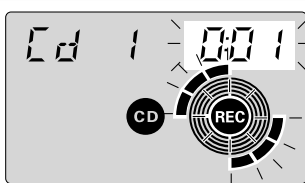
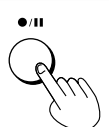
To reset the tape counter
Press [**C-RESET**].
The counter resets to "000".

A**To protect tapes against further recording****B****C****1**

Side to be recorded facing up



Insert the cassette with the exposed tape facing you.

2**3****D****Tips on Recording****A****Erasure prevention**

The illustration shows how to remove the tabs to prevent recording. To record on the tape again, cover as shown.

B**Erasing recordings**

- ① Insert the cassette with the side to be erased facing up.
- ② Press [■ TAPE/CD] to switch to TAPE mode.
- ③ Press [●/II].

Recording CDs**C****Normal recording****Preparation:**

- Insert a CD (➡ page 10).
- Wind on the leader tape.

1**Press [▲ DECK] to open the deck.**

Load a cassette with the side for recording facing up and close the deck by hand.

2**Press [■ TAPE/CD] to switch to CD mode.**

Each time you press the button:
TAPE ↔ Cd.

3**Press [●/II] to start recording.**

CD play and recording start at the same time.
The cassette stops when the CD finishes.

To stop recording

Press [■ TAPE/CD].

[D] To pause recording

Press [●/II].

Press again to resume recording.

To continue recording from another CD on the same cassette

- ① Press [▲ CD] and replace the CD.
- ② Press [●/II].

To record selected tracks

- ① Do step **1**, then program the tracks (➡ page 12).
- ② Press [●/II].

To skip unwanted tracks

- ① Press [●/II] to pause recording (the CD also pauses).
- ② Turn [TIME/PRESET TUNE ← CD SKIP →] so the next track you want to record is displayed.
- ③ Press [●/II] to resume recording.

ALL-REC

Records the whole CD or selected tracks. When the tape finishes before CD, recording and CD pauses for you to resume recording on the opposite side.

Preparation: Insert a CD (➡ page 10).

1 Press [■ TAPE/CD] to switch to CD mode.

2 Press [CD REC MODE] to display “ALL-REC”.
Each time you press the button:

ALL-REC → 1-REC → OFF

The display shows the tape length needed.
“C - - - -” indicates the tape needed exceeds 100 minutes.
You can still record, but some tracks may not be recorded if the tape isn't long enough.

3 Load a cassette with the side for recording facing up.

4 Press [●/II] to start recording.
The unit rewinds the tape, records 10 seconds of silence, and then starts recording.

To stop recording

Press [■ TAPE/CD]. The CD also stops.

If a track is interrupted at the end of the side facing up

Recording and CD pauses.

To record the track again on the opposite side

1. Press [▲ DECK], flip the cassette, and insert it.
2. Press [●/II].

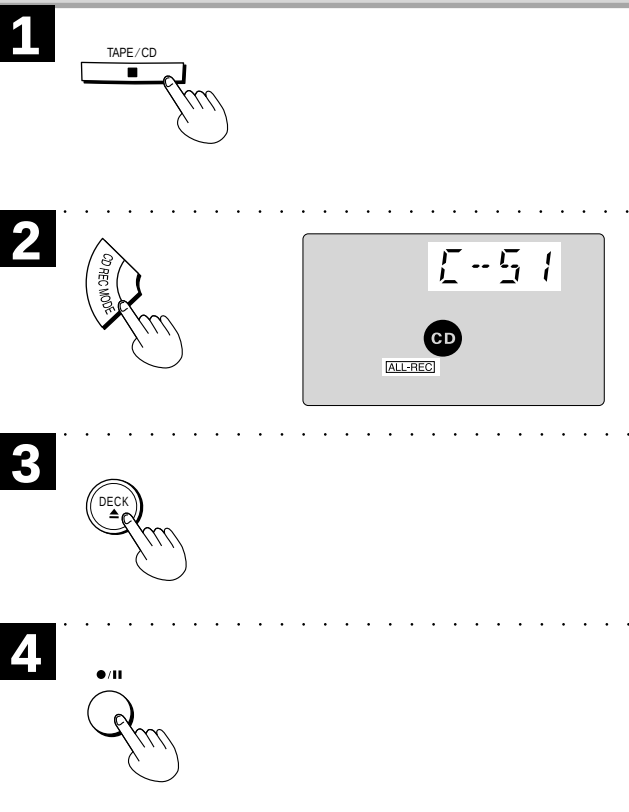
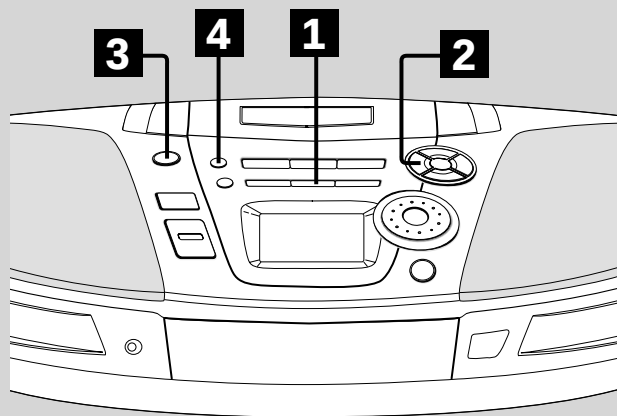
The unit records 10-second of silence, and resumes recording from the beginning of the cut-off track.

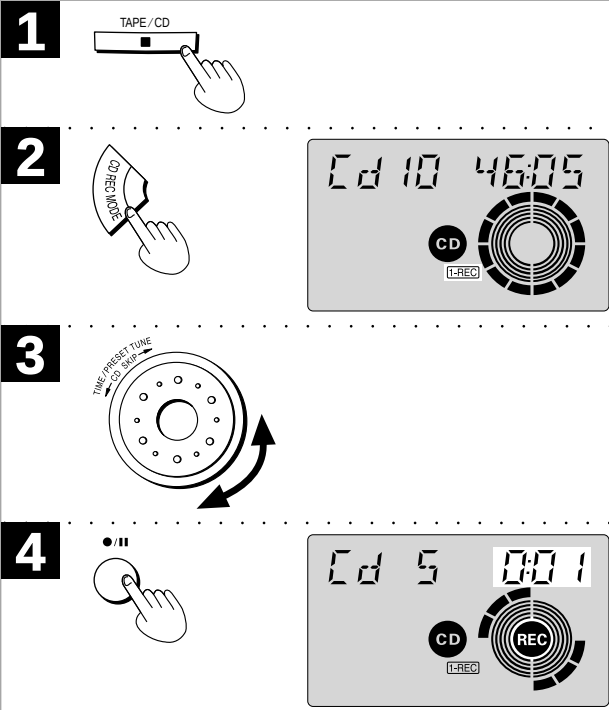
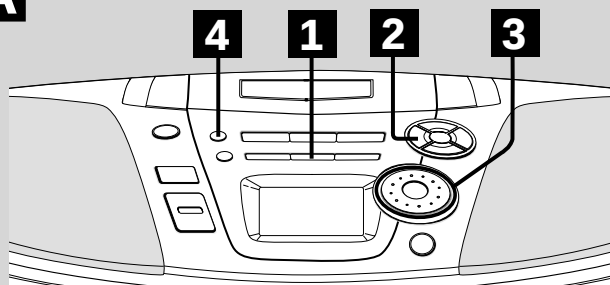
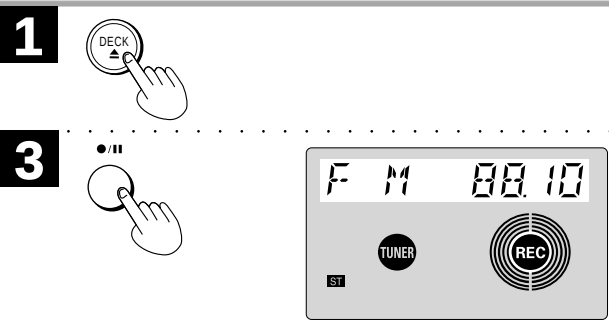
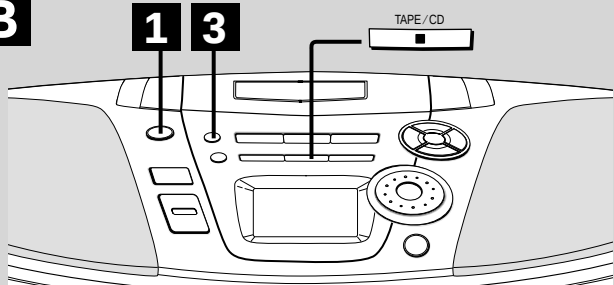
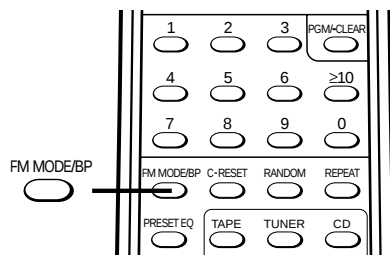
To record selected tracks

- ① Program tracks (➡ page 12).
- ② Do steps **2** to **4**.

Note

You cannot use ALL-REC with random play and repeat play (➡ page 11).



A**B****C**

Recording CDs

A

1-REC

Records a selected track from the CD and stops.

Preparation:

Insert a CD (➡ page 10) and a cassette (➡ page 13).
Wind the tape on to where you want to start recording.

1

Press [■ TAPE/CD] to switch to CD mode.

2

Press [CD REC MODE] to display "1-REC".

Each time you press the button:

ALL-REC → 1-REC → OFF

3

Turn [TIME/PRESET TUNE ← CD SKIP →] to select the track you want to record.

4

Press [●/II] to start recording.

CD play and recording start at the same time.

To stop recording

Press [■ TAPE/CD]. The CD also stops.

To continue recording from another CD

1. Press [▲ CD] and replace the CD.
2. Do steps **3** to **4**.

To record a track in play

- ① Press [CD REC MODE] to display "1-REC".
- ② Press [●/II].

Recording starts from the beginning of the track and stops when the track finishes.

Note

Recording and CD will stop when the tape reaches its end, even if the track has not finished.

B

Recording the Radio

Preparation:

- To record from the beginning of the tape:
Wind on the leader tape.
- To record from part way through the tape:
Wind the tape on to where you want to start recording.

1

Load a cassette with the side for recording facing up.

2

Tune to the station (➡ page 8).

3

Press [●/II] to start recording.

To stop recording

Press [■ TAPE/CD].

To pause recording

Press [●/II].

Press again to resume recording.

C Reducing noise when recording AM (Beat Proof function)

Remote control only

Press [FM MODE/BP] while recording.

Each time you press the button:

bP1 ↔ bP2.

Choose the setting with the least noise.

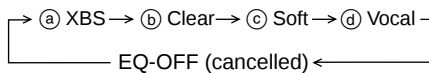
A Sound Quality

You can choose one of four types of sound quality.

- Ⓐ **XBS**: Adds punch to rock
- Ⓑ **Clear**: Clarifies higher sounds
- Ⓒ **Soft**: For background music
- Ⓓ **Vocal**: Adds gloss to vocals

Press [**PRESET EQ**] to select a setting.

Each time you press the button:



Note

Changes to sound quality do not affect recordings.

B 3-D sound with the Sound Virtualizer

Remote control only

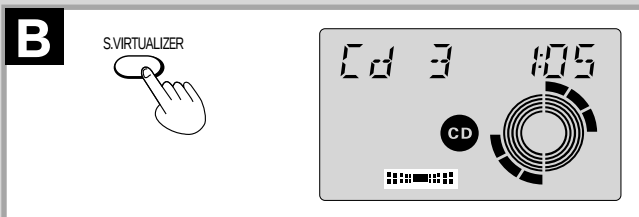
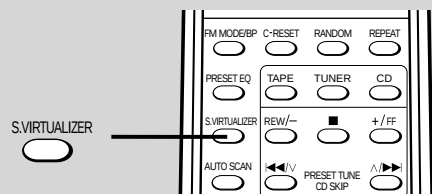
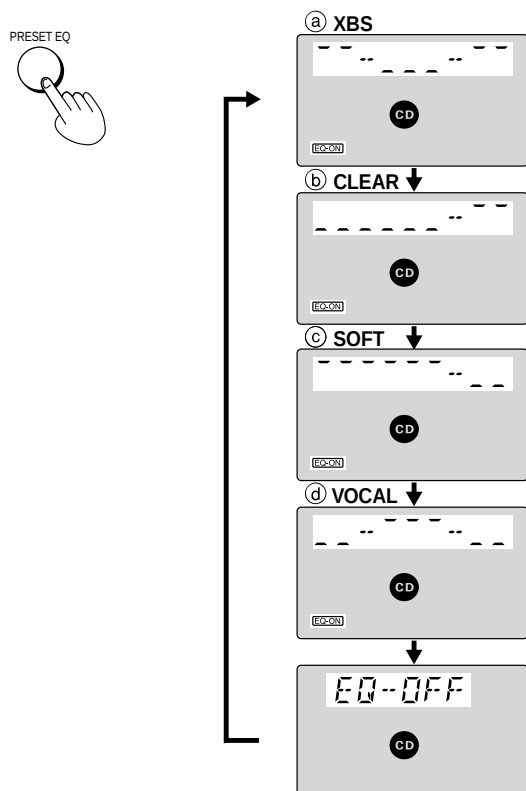
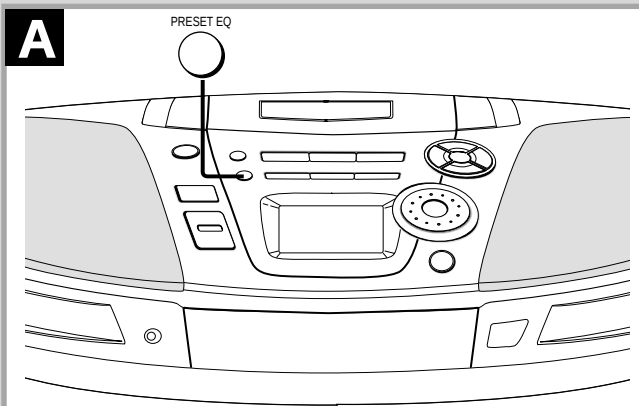
You can create a three-dimensional sound field when listening to stereo sound.

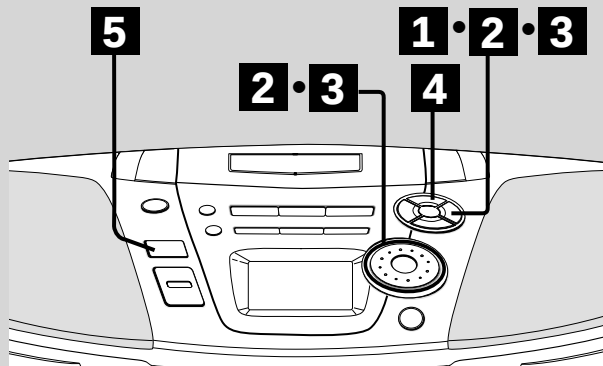
Press [**S.VIRTUALIZER**].

Press again to cancel.

Note

- This feature does not affect recordings.
- The actual effect depends on the source played.





1

FOR PLAY TIMER

Start Finish

FOR RECORD TIMER

Start Finish

2

①

②

3

①

②

4

5

The Play and Record Timer

You can set the timer to come on at a certain time to wake you up (play timer) or to record a radio station (record timer).

Preparations:

Turn the unit on and set the clock. (→ page 7)

- **For play timer**, prepare the music source (tape/CD/radio) for listening, and set the volume.
- **For record timer**, check the cassette's erasure prevention tab (→ page 14: **A**) and load the cassette with the side for recording facing up. Tune to the radio station (→ page 8 to 9), and set the volume.

Setting the start and finish times

- 1** Press [CLOCK/TIMER] to select the desired timer function.

Each time you press the button:



ON @PLAY: to set the play timer

ON @REC: to set the record timer

Proceed to step **2** before these indicators stop flashing (about 10 seconds).

- 2** ① Turn [TIME/PRESET TUNE ← CD SKIP →] to set the start time.

② Press [CLOCK/TIMER].

- 3** ① Turn [TIME/PRESET TUNE ← CD SKIP →] to set the finish time.

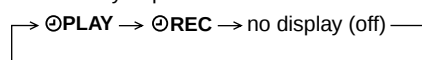
② Press [CLOCK/TIMER].

The start and finish times are now set.

Turning the timer on

- 4** Press [@PLAY/REC] to display the timer indicator.

Each time you press the button:



@PLAY: to turn the play timer on

@REC: to turn the record timer on

(The indicator doesn't appear if the start and finish times haven't been set.)

"E" appears if the clock hasn't been set.

- 5** Press [POWER] to turn the unit off.

The unit must be off for timer to operate.

The record timer comes on about 30 seconds earlier than the set time.

To cancel the timer

Press [@PLAY/REC] when the unit is on to clear the timer indicators from the display.

(The timer comes on at the set time everyday if the timer is on.)

To check the settings (when unit is off)

Press [CLOCK/TIMER].

The settings are shown in the following order:

Start time, Finish time → Music source → Volume → Original display

To change the settings (when unit is on)

To change the times

Do steps **1**, **2**, **3**, and **5**.

To change the source or volume

1. Press [@PLAY/REC] to clear the timer indicator.
2. Make changes to the source or volume.
3. Do steps **4** to **5**.

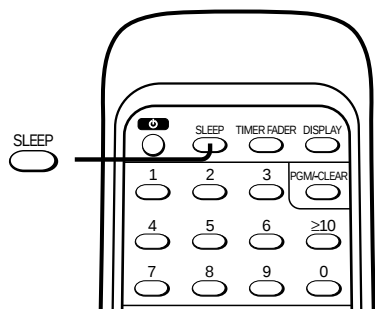
You can enjoy your desired source after you have set the timer.

Turn the unit off before the timer's start time.

Note

The play and record timers cannot be used together.

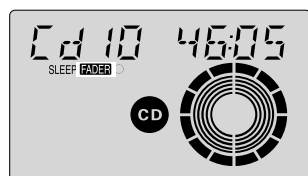
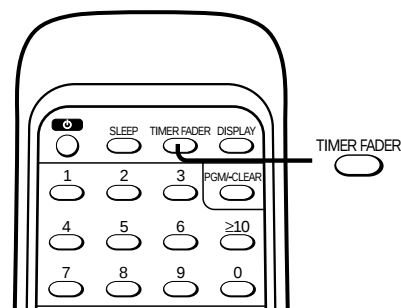
A



Time setting



B



A The Sleep Timer

Remote control only

You can set the unit to turn off after certain time. (e.g. when you want to fall asleep while listening to music.)

Press [SLEEP] to select the time (minutes).

Each time you press the button:

→ SLEEP 30 → SLEEP 60 → SLEEP 90 → SLEEP 120 →
SLEEP OFF ←

To cancel

Press [SLEEP] to select "SLEEP OFF".

To check the remaining time

Press [SLEEP] once.

The remaining time is shown for about 5 seconds.

To change the setting

Press [SLEEP] to select the new time.

Note

You can use sleep timer in combination with play and record timer. Make sure the unit is off before the play/record timer's start time.

B The Timer Fader

Remote control only

Volume increases slowly to the set level when a timer turns the unit on and decreases slowly when the sleep timer turns the unit off.

Press [TIMER FADER] to display "FADER".

(All timers will be affected.)

Press again to cancel.

Note

This feature does not affect record timer's recordings.

Maintenance

If the surfaces are dirty

To clean this unit, wipe with a soft, dry cloth.

If the surfaces are extremely dirty, use a soft cloth dipped in a soap-and-water solution or a weak detergent solution.

- Never use alcohol, paint thinner, or benzine to clean this unit.
- Before using chemically treated cloth, read the instructions that came with the cloth carefully.

For a cleaner crisper sound

Clean the heads after every 10 hours of use to assure good quality playback and recording.

Use a cleaning tape (not included).

Troubleshooting

Before requesting service, make the below checks. If you can't fix the unit as described below, or if something not listed here occurs, refer to the enclosed directory to locate an Authorized Service Center convenient to you or contact your dealer.

Reference pages are shown as black circled numbers (e.g. ④)

Common problems

"E" is displayed	Indicates incorrect operation. Read the instructions.
"UO1" is displayed	Replace the batteries or use household AC power. ④
"UO2" is displayed	Power batteries haven't been inserted. Insert them or use household AC power. ("UO2" appears only if you have inserted memory batteries.) ④

CD

CD won't play or CD display is incorrect	Place the CD label facing up. ⑩ Wait for an hour for condensation to dry and try again.
Certain sections are not played properly	Clean the CD. ⑩ Replace the CD if it is scratched, warped, or nonstandard.

Cassette deck

Recording is not possible	If the cassette's tabs have removed, cover the holes with adhesive tape. ⑭
Poor sound quality	Clean the heads. ⑲

Radio

A lot of noise or difficult to tune	Interference may be caused by other equipment or the use of its remote control. Turn the other equipment off or separate this unit from them.
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Remote control

The remote control doesn't work.	Check the batteries are inserted correctly. ⑥ Replace the batteries if they are worn. ⑥
The unit can't be turned on from the remote control.	Turn the unit on from the main unit if you are using batteries to power the unit. ④ ⑥

Technical Specifications

Radio

Frequency range	
FM	87.50–108.00 MHz (50 kHz steps)
AM	522–1629 kHz (9 kHz steps)

CD player

Sampling frequency	44.1 kHz
Decoding	16 bit linear
Beam source	Semiconductor laser (wavelength 780 nm)
No. of channels	2 channel, stereo
Wow and flutter	Below measurable limit
D/A converter	MASH (1 bit DAC)

Tape recorder

Track system	4 track, 2 channel, stereo
Monitor system	Variable sound monitor
Recording system	AC bias
Erasing system	Multi Pole magnet
Frequency range	
Normal position	50–14000 Hz

General

Speakers	(RX-ES25) 8 cm 5.4 Ω x 2 (RX-ES20) 8 cm 2.7 Ω x 2
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Jacks

Output	PHONES: 3.5 mm stereo (16–32 Ω)
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Power requirement

AC	230–240 V, 50 Hz Power consumption: (RX-ES25) 30 W (RX-ES20) 23 W
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Battery

	12 V [Eight R20/LR20(D, UM-1) batteries]
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•Do not use rechargeable type batteries.

Memory back-up for computer/clock

	6 V [Four R6/LR6 (AA, UM-3) batteries]
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•Do not use rechargeable type batteries.

Dimensions (WxHxD)

Weight	529 x 144 x 276 mm (RX-ES25) 4.5 kg without batteries (RX-ES20) 4.0 kg without batteries
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Note

Specifications are subject to change without notice.
Weight and dimensions are approximate.